

2011-2012 Mobile Device Pilot ~ Tablet Use Report – Draft

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NORTH CAROLINA GENERAL ASSEMBLY
Joint Legislative Oversight Committee
on Information Technology
Representative Marilyn Avila, Co-Chair
Senator Andrew C. Brock, Co-Chair

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Introduction

During the 2011-2012 interim between legislative sessions, the Joint Legislative Oversight Committee on Information Technology conducted a Mobile Device Pilot Project (MDPP) using tablets for Committee member and staff for committee work and individual use. The purpose for the pilot was to evaluate the practical use of tablets as well as any limitations. The Pilot was and is timely because mobile devices continue to become increasingly prevalent in the public and private sector. North Carolina joined other legislatures around the country in the process of developing effective use of tablets and other mobile devices. Further, General Assembly members were using tablet devices for their personal and business use and thus had begun bringing them to the General Assembly for use in combination with law-making activities. Adding the growing use of mobile devices by staff, lobbyists, stakeholders, public officials and the general public, it became imperative to determine best uses and challenges presented by the growing use of mobile devices in the legislative environment.

As noted in the introduction of the proposal, “The project will seek to determine how mobile devices might improve overall productivity, reduce the use of paper and print services, and provide for a more effective and efficient approach by which members and staff perform their day-to-day-legislative duties.” Furthermore, as defined in the project scope:

“Project Scope

The project may encompass a review of all potential mobile devices in order to evaluate the practical use of the device as well as its limitations. The devices will be deployed to the sixteen members of the committee as well as the committee staff. The committee site will be modified to allow easy access for members as well as the public to view documents and presentations offered to the committee. Consideration must be given to provide for the use of a NCGA public WiFi network to allow for participation by members of the public who do not have the use of a cellular connection. ISD is confident that our existing infrastructure and capabilities can facilitate this need. In addition, acquisition of additional software that may not be native to the device may be necessary in order to allow for NCGA remote access, and to enable users to



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view certain types of information or access external sites for use. This need will be assessed during ISD's formatting of devices.

This "controlled" environment will allow for collection of the necessary evaluation criteria needed to support a meaningful report on the outcome of the project. The findings in the report will allow for input concerning the chamber automation project and the consideration of expansion of these mobile technologies to other legislative committees. Lastly, the report should provide the essential information required to enable the Joint Legislative Leadership to make a determination as to how mobile devices might be used to improve the legislative business process."

Additionally, the proposal set forth what legal issues needed to be studied as they pertained to a "paperless" environment.

"Legal Issues

The primary purpose of any legislative committee is to develop, or review, proposals for new or amended laws. Ultimately, law involves the analysis and management of information. Historically, law has been in written form. Nevertheless, the ever-advancing information technology innovations of the Digital Age present the legislature with the opportunity to make law with all the advantages and efficiencies that technology offers. In North Carolina, bills and enacted legislation are already disseminated and accessed electronically. The pilot will allow the committee process to be a paperless process. The law is often presumed to be written on paper, however, it does not necessarily require paper. The paperless committee pilot will provide a review of when paper is required in the legislative committee process versus when it is preferred by tradition. This information is an important component of determining why, when, and how to convert to a paperless process in other legislative committees as well."

Lastly, the proposal outlined twenty-one evaluation criteria to provide a foundation for the pilot findings. To complement the evaluation criteria, the committee conducted a survey; the results follow the criteria findings. While there are twenty-one criteria outline in the proposal, they can be condensed into four categories to summarize the analysis and findings, they categories are:



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functionality, associated costs, security and support requirements, and the use of paper and print services.

The Pilot

ISD purchased 22 tablet devices from Verizon's Wireless pricing plan using the state's cellular contract for state and local government. ISD purchased twelve Apple iPads and ten Motorola XYBoards, each with 16GB of memory, a folio case with keyboard, and the unlimited use government data plan. For inventory purposes, ISD also purchased three car chargers, two Apple docks, and one spare charger for each model tablet.

The tablets were used "out of the box" but were set up and configured with the NCGA Internet site as well as the committee's Web site as icons on the home screen. NCGA e-mail was set up on the tablets. Other non-NCGA e-mail accounts (G-mail for example) were setup if requested or if assistance was needed. A free software package was installed to allow for access to the NCGA's remote desktop servers. Otherwise, ISD did not restrict what software could be downloaded to the tablet. A defined Copilot data network, separate from our internal data network and from the member's only network (MONET) was set up for tablet access. Use of the Copilot data network (COPILLOT) was restricted to participants in the tablet pilot. The tablets were distributed to members and staff and they proceeded to use them in the IT committee meetings, and some members and staff used them in other committee meetings. Due to device software limitations on the tablets, all meeting agendas were converted to an HTML format and put on-line. All committee presentations were converted to PDF format and put on the committee's Web site for use in the meetings. In addition, when session reconvened, members used the tablets to access the chamber and member dashboards.



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Summary Categories

Functionality

It is easy to see why tablets are attractive as a means of retrieving electronic information, reading e-mail, searching the Web, and accessing social media sites. Unlike traditional laptops, tablets have a smaller footprint weigh significantly less, and have a longer battery life. The following paragraph compares tablet sizes.

iPad Dimensions vs Alternatives

Though the iPad is considerably slim, it is not the only [tablet](#) PC on the market. For example, the ASUS Eee Pad [Transformer](#) is 10.6 inches long, 6.9 inches wide, 0.51 inches thick, and weighs 1.49 pounds. The Samsung Galaxy Tab 10.1, on the other hand, is 9.69 inches long, 6.71 inches wide, 0.43 inches thick, and weighs 1.32 pounds. Additionally, the Motorola Xoom is 9.81 inches long, 6.61 inches wide, 0.51 inches thick, and weighs 1.6 pounds. Comparatively, the iPad is one of the lightest, slimmest [tablet PCs](#) available on the market today.¹

On the other hand, balanced against these gains is a loss in overall functionality if the tablet is to be used for the same tasks as a laptop. As indicated by the responses to question 19 in the survey, and to paraphrase a member's view as stated at the 8-02-2012 committee meeting, the tablet is "good for reading a book, but not for writing a book."

For those members who need the full functionality of a desktop or laptop, the iPad and Android tablet devices cannot run the Microsoft Office products Word or Excel. Moreover, there are limitations as to how documents can be viewed and manipulated via Web delivery using the tablets. For example, the Motorola XYBOARD downloads a PDF document and the users must locate the file and open it in the PDF viewer. The iPad is unable to render multiple documents in a single browser pane; this requires multiple windows or tabs for the viewing of multiple

¹ <http://www.tech-faq.com/how-much-does-the-ipad-weigh.html>



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documents. Through software applications and as tablet technology matures, these limitations can be overcome.

However, as their intended purpose, the tablets proved very functional for access to committee content, e-mail and social networking sites, Web searching and information gathering.

Associated Costs

Hardware

The total non-recurring charges were approximately \$18,000.

Unlimited Data Plan

The total recurring, data plan charges are \$836.22 per month. ISD paid for these charges. It has been suggested that if the legislature provides tablets, the members could use funds from their office account to purchase the data plan. However, a change in the use of this account for this purpose would need to be made by the Legislative Services Commission.

The cost details are as follows.

Per item Cost

Item	Unit Cost
IPad	\$629.00
iPad case/keyboard	\$74.99
iPad spare charger	\$20.00
iPad dock	\$29.97
iPad car charger	\$22.49
XYBOARD	\$529.99
XYBOARD spare charger	\$22.49
XYBOARD case/keyboard	\$97.49
1 year Unlimited Data Plan	37.99 (recurring)
Total non-recurring charges	17,378.18
Total recurring charges	\$836.22



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Data Plan	
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Per Unit Device Cost

Item	Unit Cost
IPad and accessories	\$703.99
XYBOARD case/keyboard	\$627.48

Software

ISD did not purchase any “Apps” for the tablets. We used a free version of a software package to allow for remote access to the NCGA data network. As noted, ISD did not restrict the downloading of “Apps” by members or staff.

Presently we have a manual process of moving documents (drag and drop to a folder) to committee Web sites. If we are going to have all committees put their content on the Web, either in advance of the meeting or in real time, investment in a content management software package should be explored. The software would provide the tools for committee clerks and staff to seamlessly move documents to the committee’s site, as well as make them manageable for electronic access by members and committee participants.

While we are striving to reduce printing in the legislature, members still want to print at times from their tablet devices. In order to do this, additional print management software and tablet-compatible printers would be necessary.

A discussion of mobile management software is in the next section.



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Security and Support Requirements

Security

While security is of the utmost importance, the way in which the tablets were used was not a major concern. All of the content accessed by the users was Web based. As designed, the Web is segregated from the internal legislative data network. Additionally, the Copilot network was configured to not allow access to the internal network, i.e., internal network storage and servers. As an example, the “F and S” drives could not be accessed. Furthermore, these devices were NCGA provided so we were confident the devices were secure on our network.

In the case of members having their personal tablets, again since the content from both committees and chambers was Web based, the threat to the legislative data network was minimized.

However, if tablets are to be used in the legislative environment, mobile management software or hardware will need to be installed in the legislative setting. One such method of security is implantation of a Network Access Control (NAC) device or server. A NAC device controls access by authenticating the device upon its connection to a network. One definition is as follows.

“Network access control (NAC), also called network admission control, is a method of bolstering the security of a proprietary [network](#) by restricting the availability of network resources to endpoint devices that comply with a defined security policy.

A traditional network access server (NAS) is a [server](#) that performs [authentication](#) and [authorization](#) functions for potential users by verifying [login](#) information. In addition to these functions, NAC restricts the data that each particular user can access, as well as implementing anti-threat applications such as [firewalls](#), [antivirus software](#) and [spyware](#)-detection programs. NAC also regulates and restricts the things individual subscribers can do once they are connected. Several major networking and IT vendors have introduced NAC products. NAC is ideal for corporations and agencies where the user environment can be rigidly controlled. However, some administrators have expressed doubt about the practicality of NAC deployment in networks with large numbers of diverse users and devices, the nature of which constantly change.



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An example is a network for a large university with multiple departments, numerous access points and thousands of users with various backgrounds and objectives.”²

However, as the hacker community begins to attack tablet devices in depth, security policies and procedures need to be developed if it is determined tablets will be utilized in the legislature, no matter whether the tablet is NCGA provided or not. Any device that is intended to access the internal workings of the legislative data network needs to have the same security protection as NCGA-provided equipment.

Support Requirements

Tablet devices require the same support requirements as are needed by desktops and laptops. As in all cases, ISD does its best to become familiar with the variety of personal smartphones and other devices that a member or staff may use.

For the pilot, the number of devices was not overwhelming to support. Today, ISD uses a software delivery application to remotely distribute software, software patches, as well as desktop icons to users. This same methodology will be necessary to support tablets in our environment. Therefore, a mobile management software solution will need to be considered.

Lastly, if we allow for members and staff to have access to multiple devices, thought must be given to the possible need to increase computer support staff because of increased workload.

² <http://searchnetworking.techtarget.com/definition/network-access-control>



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Reduction in Use of Paper and Print Services

Besides determining the functionality and practical use of tablet devices, the pilot's charge was to determine the potential savings in the use of paper and print services. There are many associated costs with paper use. Naturally, there is the cost of the paper, the associated cost of toner or ink used in the printer/copiers and finally the time involved by staff to print and distribute the paper copies as well as the wait time for members and staff as the copies are being distributed.

The Indiana legislature conducted a study of paper use in November of 2011. They too were considering "going paperless with iPads." As stated in an article from NCSL's blog, *The Thicket* – November 17, 2011, "An in-depth report prepared for the committee by staff of the Legislative Services Agency provides detailed information that should be helpful to other states looking at implementing tablets in the legislature or moving toward a more paperless process." The study also analyzed the "study the flow of paper throughout the Indiana legislative process." Their findings were that "A single bill in the Indiana General Assembly generates about 11,400 sheets of paper, weighing 45.6 lbs. and creating a 3.8 foot stack of paper—that's the equivalent of 1.386 trees!"

While our pilot did not do as in depth of study of paper use, we do have documentation that tracks paper use for our legislature. We had the print shop keep records of the number pages and the number of copies of legislation as well as other documents for committees they produced between 7-21-2011 thru 8-14-2012. While not detailed in nature as to the exact type of duplication, what can be determined is the number of pieces of paper and copies that were produced by the print shop for that period. Furthermore, we know the number of cases we purchased for the 2011 session as of August of this year and for the two-year cycle for the 2009 session.

For this purpose, only 8.5x11.5 white paper as well as 8.5x11.5 white three-hole punch paper was analyzed. This represents the paper used for the bulk of printing in the legislature.



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The methodology for this analysis is straightforward. The cost of the paper and the cost of the printer/copier were used as multipliers for the cost of copies.

There were six meetings held from January thru May during the tablet pilot. We had 183 (duplex) pages for presentations. The committee consists of 16 members and 9 staff. Thus, total number of copies required for the committee was 25. Had we provided hard copy of the presentations, we would have produced 4587.5 pages. The cost would have been \$64.68. The table below shows the calculations for these results.

Joint Legislative Oversight Committee on IT - January – May 2012 - Duplication Cost Savings

Total Pages - Duplex	Total Members/Staff	Total Number of Pages	Paper Cost	Copier Cost	Combined Paper/Copier Cost Paper=.0062 Copier=.0079	Presentation Duplication Cost
183.5	25	4587.5	0.0062	0.0079	0.0141	\$ 64.68

Additionally, we looked at the number of committee meetings that were held for the same time period. These committees did not keep track as we did of the number of pages presented. Therefore, we used the same information used for the IT committee regarding presentations and used an average of 18 members and staff per committee to determine the potential print costs. There were 233 meetings during the same time period. Using these figures, the average number of pages per meeting would have been 30.58. The total number of pages for the 233 meetings would have been 7,125.14. The cost would have been \$1,808.36. The table below shows the hypothetical costs for duplication of the presentations.

Interim Committees – January – May 2012 - Hypothetical Duplication Cost Savings

Total Pages/Meeting - Duplex	Total Number of Meetings	Total Pages	Total Members/Staff	Total Number of Pages	Combined Paper/Copier Cost Paper=.0062 Copier=.0079	Presentation Duplication Cost
30.58	233	7125.14	18	128,252.52	0.0141	\$ 1,808.36

The information contained in the print shop logs between 7-21-2011 thru 8-14-2012 indicates true costs printing cost for that period for committees and the chambers. For that



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period, paper duplication cost was \$22,321.25. The table below shows the calculations for this cost.

Print Shop Duplication Costs - 7-21-2011 thru 8-14-2012

Duplex pages	Total Pages Copied	Combined Paper/Copier Cost - Paper =.0062 - Copier=.0079	Total Print Shop - Paper and Production Cost
43,673.77	1,583,067.27	0.0141	\$ 22,321.25

Finally, at the end of this section, there are tables that show paper costs for the 2009-2010 and the 2011-2012 sessions. This is included to provide information of the overall purchase of 8.5x11 white plain and three-hole punch paper.

By using tablets or electronic devices in committees, a savings can be realized not only in paper costs and production, but also in the time that is required by staff to print the documents and distribute them in meetings or on the chamber floor. As the price of paper, equipment and supplies increase, the use of electronic devices in the legislature will help defer those increases.

Conclusion

Before tablets, the choice between the two alternatives of a desktop or a laptop was simple, if portability was required: a laptop was the device of choice. As tablet devices mature, new devices come to the marketplace (Microsoft's Windows software for tablet devices), and ultra-books become more business ready (i.e., more durable) the choices will become greater and thus, more difficult to make.

Currently, each member is permitted to select one device: either a laptop or a desktop. If the options are expanded to include tablets and ultra-books, the same practice should be followed.

As members may want to bring in their own tablets so they can be free to use them for personal, business, and legislative use, the co-mingling of personal and non-legislative information and the impact of legislative confidentiality and public records must be considered. Additionally, the legislative environment will need to provide the same functionality and security as it does for NCGA provided devices.



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As the technology evolves, policies that govern the use of technology must also evolve. Having technology readily available can blur the lines of acceptable use in the legislature. If the legislature is to keep at the forefront of technology the policies and procedures that govern the access to and use of the legislative technology should be reviewed to provide reasonable use standards that can be easily understood, easily adhered to and easily enforced.

The pilot has demonstrated that tablet devices have a place in the legislature for consuming legislative information, a task for which they are ideally suited. If they are to be used as a full function device, however, they will require additional software to access the NCGA's remote desktop servers, and those servers will need to be configured and tested to ensure they can handle the increased use load.

Technology has always had its place within the legislature. As fast as it changes, the challenge will be to fit the technology into our environment to provide for the best return on the investment, no matter what technology is utilized.



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Recommendations

1. ISD should continue to offer one computer to members. Based on the member's needs, they can select a laptop, an ultra-book, or a tablet device
2. NCGA-provided computer devices must be secure, but also need to be functional to allow members to conduct legislative business via applications and social media interaction when communicating with constituents.
3. Rules and procedures for reasonable acceptable use policies of legislative devices or personal devices should be reviewed and modified as needed to accommodate the use of tablets.
4. Tablet Use
 - a. NCGA-provided.
 - i. NCGA will need to invest in the necessary mobile management and development software and/or hardware to allow ISD to manage the devices using the same methodology as is done with the current NCGA-provided devices.
 1. Security
 - a. Tablet passwords required.
 2. Software deployment
 - b. Use of personally owned Tablets.
 - i. If members are allowed to bring their own tablet device to access legislative information, the devices will need to be validated via NCGA mobile management software and hardware for network access and to install NCGA approved software.
 - c. Tablet software.
 - i. Provide and purchase if necessary, software that allows access to the NCGA remote desktop servers and any other software required for security and functionality and development.



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- ii. NCGA should provide a list of approved software that ISD can recommend to members for purchase that may assist the member or staff in their legislative business needs.
- d. ISD will be responsible for the direct support of legislative supplied devices. ISD will make every attempt to aid members with the use of their personal devices. ISD will follow the Legislative Services Commission policies on software (“Software – Programs on General Assembly Personal Computers” and “Software –Use and Duplication”, for the support of software.
- 5. The Legislative Services Commission should modify the rules that govern how the office expense allowance is used to allow members to have the option of purchasing a data plan.
- 6. ISD should evaluate and purchase content management software for the setup of committee Web sites to allow for seamless document management by committee staff.
- 7. ISD will need to evaluate their current staffing and determine if having to support multiple devices will require additional support staff.
- 8. The member’s only network (MONET) should be continued to provide a secure network for members to use their own device to access non-NCGA information.
- 9. The legislature should continue to explore all options of reducing the overall use of paper in the legislature.



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Appendix

Evaluation Criteria and Outcomes

The evaluation criteria findings are in italic text.

1. Does the device have the necessary functionality and flexibility; i.e., is the device "ready for prime time."
 - a. Overall device features and device limitations:
 - i. The uses of these devices are relatively new to public and private sector business, are we going to be the early adopters of the technology?
 1. *The Android market has three main manufactures Sony, Motorola Samsung. The MS windows device is in the development stages. Other companies, Lenovo, for example are introducing devices that have ultra-book and tablet functionality combined.*
 - ii. *The iPad was introduced into the market place in 2010. Since that time, Apple has released two version of the device and is scheduled to update the product again.*
 - iii. *Consumers, the private sector, state agencies and state legislatures are using tablet technology and the technology is vetted on a daily basis via trade journals and magazines. The technology is clearly here to stay and its use is inevitable.*
 - b. The hardware and software are ever improving, and the technology advancements mimic the early phases of the PC and laptop platforms. How likely is it that the current limitations will be overcome by these advancements?
 1. *The use of mobile management software will be required in the legislative environment.*
 2. *As with MS Office products, word processing and spreadsheet applications are necessary to get the most functionality from the tablet device.*
2. Costs
 - a. Device costs.
 - i. *NCGA initial investment in the 22 tablets was approximately \$18,000 (\$818 average cost) with a total monthly data plan charge of \$836.22 (\$38 average charge).*
 - b. Associated software costs.
 - i. *As with laptop use, the NCGA will need approved applications for access to the NCGA remote desktop servers, as well as to printers to aid members and staff with document production.*
 - ii. *Additionally, the NCGA could establish a list of "approved" apps that members could purchase on their own. By doing so, members and the NCGA*

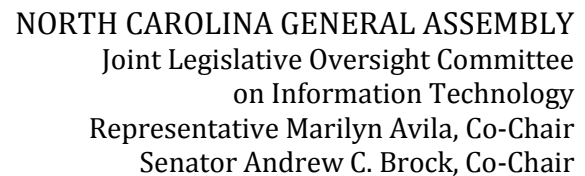


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would could have confidence that the apps were vetted by IT staff and all security concerns were addressed for personal, business and legislative use.

- c. Training costs, if any.
 - i. *IDS would incorporate the training into its training schedules.*
- 3. Software requirements.
 - a. *Members and staff indicated that there is the need to access the NCGA remote desktop servers as well as the need for a software package similar to the Office Suite. E-mail can be accessed from the tablet device's software without direct NCGA network access.*
 - b. *The purchase of mobile management software and content management software will be required for tablet management and committee content management.*
- 4. Explore the "bring your own device" option:
 - a. Pros/cons.
 - i. *Discussed in the body of the report.*
- 5. Compatibility with current and future NCGA software:
 - a. In-house developed.
 - i. *With the chamber automation system, software was developed to be platform agnostic [platform-neutral?], since the applications ran as Web services. The chamber dashboard, member staff board and chamber driver systems all worked well on both tablet devices. However, having two distinct devices required the developers to design and test on each tablet device as well as on the traditional laptop and PC. Functionality in some instances was stymied due to tablet limitations.*
 - b. Purchased products.
 - i. *ISD did not purchase any products for members. We used a free version of remote access software to access our remote desktop servers. Nor did it purchase a content management software package or mobile management software.*
 - c. Future (short- and long-range) access to, and readability of records created.
 - i. *The same policies, procedures and law apply to data use and access from a tablet. However, these may need to be reviewed to allow them to keep pace with the technology as it changes and as it is used.*
- 6. Use of device for the viewing of committee documents:
 - a. Meeting agendas.
 - i. *The Android device was unable to launch a link from within a Word document. Thus, a Web based version of the agenda was created. This however required our Web master to create the document. If tablets were to be used in other committees, this would not be a practical solution, and an agenda committee application would need to provide for this.*
 - 1. *The iPad did not have this issue.*
 - b. Presentations.



- i. All presentations and documents were converted to PDF format.*
 - 1. The Android device downloaded the document and the user needed to remember to go to the download link to view the file. This took some getting used to but was workable.*
 - 2. The iPad device allowed the documents to be viewed in the browser window.*
 - c. Legislation and its development:*
 - i. Bills.*
 - ii. Amendments.*
 - iii. Committee substitutes.*
 - iv. Committee reports.*
 - v. Fiscal notes.*
 - d. Document sharing and collaboration between members and staff.*
 - i. The use of the tablet was found to be more useful in the consumption of information rather than the production.*
- 7. Use of device for:*
 - a. Video/audio.*
 - i. Members would use the tablet for video conferencing if it were available. See responses to survey question 26).*
 - b. Webinars.*
 - i. As with laptop use, the device can be used to view Webinar content.*
 - c. Member-related cost-saving generated by alternative for "go-to-meeting" usage:*
 - i. Assess potential savings in the area of:*
 - 1. Travel reimbursement.*
 - 2. Extra-day/overnight per diem.*
 - ii. If this is to be considered, the Legislative Services Commission will need to create and modify rules that pertain to the above topics.*
- 8. Cost/benefit analysis of potential savings, whether quantifiable or unquantifiable, direct or indirect; including, but not limited to: paper and printer services costs reductions.*
 - a. This topic is discussed in the main body of the report.*
- 9. Ease of use by members and staff for increased efficiency.*
 - a. Members and staff found the devices easy to use. They also felt the devices aided in their productivity. For example, a staff member was the only staff to have a computer (tablet) at a meeting with members and staff and was able to research the answer to a question where the answer was not known. Thus, a decision was able to be considered instead of put off until the required research was performed.*
- 10. Reliability.*
 - a. The Android device had some minor problems, such as:*
 - i. Not charging fully.*
 - 1. This could have been due to a faulty charger. When that was replaced, the device charged.*



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2. *One device had to be set back to factory default.*
 3. *Device would freeze periodically and required a “hard reboot”.*
 - b. *We had one instance of an iPad failure. Apple allows for the iPad to be brought to one of their stores to be evaluated and exchanged if necessary. In this instance the device was replaced. As a result, the device needed e-mail and network setup and was returned to the member.*
 - c. *The Apple folio keyboard experienced keys just dropping off.*
 11. Application and device security; including analysis to determine the level of protection needed and the level of risk that can be tolerated in the legislative committee environment.
 - a. Encryption.
 - i. *As is done today with current NCGA laptops, hardware/software encryption will need to be implemented.*
 - b. Password protect device.
 - i. *With the inherent portability of mobile devices, password protection is essential to ensuring device and information security.*
 - c. Virus protection requirements.
 - i. *Software security companies are making available mobile protection. That protection can be incorporated into a total mobile management security suite.*
 12. Network Interface.
 - a. Speed – download/upload.
 - i. *The NCGA wireless network was more than adequate for document downloads/uploads.*
 - b. NCGA wire/wireless.
 - i. Member Only Network - Monet
 1. *The MONET was designed to all those members who wished to use their own devices to access business or personal e-mail and information. This network worked well for the chamber automation pilot since the application was a Web based service. This network will not have access to our internal network, thus personal devices will not be able to access NCGA information.*
 2. *A Co-pilot wireless network segment was created for network access by the committee tablet devices. This network was segregated (firewall and access control list implementation) from the standard wireless network.*
 3. *If we have the use of personal devices, a network that has access to NCGA Web services for chamber automation will need to be initiated to provide secure access of the devices to network content.*
 - c. Cellular.
 - i. *Members utilized the cellular data network when wireless was not available. The usage is as follows: (USAGE DATA at end of document)*
 - d. Voice/Video and Data.



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- i. The user understands the limitations of tablet devices. For the most part, the tablet can be used for voice/video and data usage.*
13. Data Storage impact.
 - a. If mobile devices are used, a device with the maximum storage available should be purchased. Unlike a network file system, documents downloaded to the device will begin to use up space. If trained properly, these can be deleted by the user; however, it can present a problem if regular storage housekeeping is not performed.*
14. Requirements of staff, the committee clerk, and presenters in order to provide a true digital experience.
 - a. In house product development or a content management package would need to be purchased in order to allow for seamlessly uploading and accessing documents.*
15. Configuration requirements.
 - a. Use mobile management software.*
16. How the device fits within the following areas:
 - a. IT device refresh rate.
 - i. Mobile devices are so new (iPad introduced in 2010) that the technology and operating systems are on almost on the same refresh rate as smartphones. Whereas, laptops, or ultra-books, with windows operating systems will be on par with a 3-4 year refresh rate.**
 - b. Software update requirements.
 - i. On non-windows devices, a mobile device software management package, (see below) will be required. Inherent to tablet devices and mobile devices in general, “Apps” are “self-updating” if allowed. For laptops and desktops in the NCGA, automatic updates are not allowed and are controlled via software settings. If this is not done for a tablet this could become problematic to the functionality of the device in the legislative environment.**
17. Requirements for a mobile device management solution.
 - a. There is no need to re-invent the wheel when it comes to mobile device security. Daily, information in this area is being discussed in trade magazines. If a non-windows device is to be used, a proven mobile security software package will need to be purchased. These packages allow for bulk software updates and remote wipe capability in the event a device is lost or stolen.*
18. Training in use of device for members and staff.
 - a. Training was adequate but more was desired by some.*
19. Use of social media sites and other web-based tools as a catalyst for constituent casework, interaction and communications.
 - a. Members indicate that they use the table extensively for these purposes. Survey questions 23, 24.*
20. Assist in development of a template for converting a traditional legislative committee process to an electronic one, especially if converting means re-engineering the existing process.



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- a. In order for deployment of tablet use for all committees, a system, somewhat similar to the piloted chamber automated system will need to be developed. This requirement is to ensure fast and easy access to committee documents, both at hand, and that may be introduced during the meeting. The development of a committee document access system (or dashboard) must be designed with technology that is able to be utilized with proper training by the committee clerks and support staff.*
21. Transparency; public access capabilities and limitations.
 - a. Rules and procedures for reasonable acceptable use policies of legislative devices or personal devices should be reviewed and modified as needed to accommodate the use of tablets.*

[Link to Data Usage Report](#)

[Link to Survey Results](#)

[Link to Total Paper Expenditures and Usage Report - 2009-2010 and 2011-to Present](#)